In the Claims:

1-52. (Cancelled)

53. (Currently Amended) A method of forming a stacked-die assembly, the method comprising:

providing a substrate with contacts formed on a top surface;

placing a bottom side of a first die over the top surface of the substrate, the first die having a top side with a redistribution layer that comprises re-routing lines that redistribute bond pads located on a right side and a left side of a [[first]] gap in an interior region to corresponding re-routed bond pads in a periphery region;

placing a spacer over the first die;

placing a bottom side of a second die over the spacer, the second die having a first side with a redistribution layer that comprises re-routing lines that redistribute bond pads located on a right side and a left side of a [[first]] gap in an interior region to corresponding re-routed bond pads in a periphery ~~region;~~ region, each of said re-routing lines extending without an intermediate connection from said bond pads in said interior region to said corresponding re-routed bond pads in said periphery region; and

electrically coupling wire leads from the re-routed bond pads of the first die and the second die to the contacts.

54. (Original) The method of claim 53 wherein the step of electrically coupling is performed by wire bonding.

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55. (Original) The method of claim 54 wherein the wire bonding is performed further to the interior of the second die relative to the bonding of the first die.

56. (Original) The method of claim 53 wherein the first die is identical in structure to the second die.

57. (Original) The method of claim 56 wherein the first and second dies comprise dynamic random access memory devices.

58. (Original) The method of claim 57 wherein the first and second dies comprise double-data rate dynamic random access memory devices, each memory device including at least 512 Mb of memory cells.

59. (Previously Presented) The method of claim 56 wherein, for both the first and second dies, the bond pads are positioned in a left column and a right column running parallel to a center line through the interior region, each bond pad in the left column being located to the left of the center line and each bond pad in the right column being located to the right of the center line, wherein the redistribution layer routes a plurality of bond pads from the right column across the center line to corresponding re-routed bond pads on the left side and also routes a plurality of bond pads from the left column across the center line to corresponding re-routed bond pads on the right side.

60. (Previously Presented) The method of claim 56 wherein the redistribution layer of each of the first and second dies includes a ground plane, the ground plane including a line

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substantially encircling the re-routed bond pads and a plurality of ground lines that surround some of the re-routing lines.

61. (Previously Presented) The method of claim 60 wherein a plurality of the bond pads comprise data input/output bond pads, wherein the plurality of ground lines surround some but not all of the re-routing lines, and wherein the plurality of ground lines surround re-routing lines that are electrically coupled to the data input/output bond pads.

62. (Original) The method of claim 56 wherein the redistribution layer of the first die includes a first ground plane and wherein the redistribution layer of the second die includes a second ground plane.

63. (Original) The method of claim 62 wherein the first ground plane and the second ground plane each comprise a line substantially encircling the re-routed bond pads.

64. (Previously Presented) The method of claim 62 wherein the first ground plane and the second ground plane each comprise ground lines adjacent a left side and a right side of a plurality of the re-routing lines.

65. (Original) The method of claim 53 wherein, for both the first and second dies, the re-routed bond pads comprise elongated bond pads extending from an edge of the die toward the interior region of the die, wherein electrically coupling wire leads comprises:

for the first die, attaching wires to the re-routed bond pads at a portion of the re-routed bond pads nearer the edge of the first die; and

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for the second die, attaching wires to the re-routed bond pads at a portion of the re-routed bond pad nearer the interior region of the second die.

66. (Previously Presented) The method of claim 53 wherein the redistribution layer of the first and second dies comprises a multi-layer structure.

67. (Previously Presented) The method of claim 66 wherein the redistribution layer comprises:

a titanium layer;

a copper layer formed on the titanium layer;

a nickel layer formed on the copper layer; and

a gold layer formed on the nickel layer.

68. (Original) The method of claim 53 wherein the first die and the second die are both formed on a silicon substrate and wherein the spacer comprises a silicon spacer.

69. (Previously Presented) The method of claim 53 wherein the substrate includes at least one wiring layer formed inside the substrate, the wiring layer electrically coupling the contacts to conductive balls on a second surface of the substrate.

70. (Original) The method of claim 53 wherein placing the first die over the substrate comprises adhering the first die to the substrate with tape.

71. (Original) The method of claim 53 wherein placing the first die over the substrate comprises printing an adhesive over the substrate and placing the first die in the adhesive.

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72. (Original) The method of claim 53 wherein electrically coupling wire leads from the re-routed bond pads of the first die and the second die to contacts formed in the substrate comprises electrically coupling wire leads from the re-routed bond pads of the first die before placing a spacer over the first die and electrically coupling wire leads from the re-routed bond pads of the second die after placing the second die over the spacer.

73. (Currently Amended) A method of forming a stacked-die assembly, the method comprising:

providing a substrate with contacts formed on a top surface;

placing a bottom side of a first die over the top surface of the substrate, the first die having a top side with a redistribution layer that comprises re-routing lines that redistribute bond pads located on a right side and a left side of a [[first]] gap in an interior region to corresponding re-routed bond pads in a periphery ~~region;~~ region, each of said re-routing lines extending without an intermediate connection from said bond pads in said interior region to said corresponding re-routed bond pads in said periphery region;

placing a bottom side of a second die over a spacer, the second die having a first side with a redistribution layer that comprises re-routing lines that redistribute bond pads located on a right side and a left side of a [[first]] gap in an interior region to corresponding re-routed bond pads in a periphery ~~region;~~ region, each of said re-routing lines extending without an intermediate connection from said bond pads in said interior region to said corresponding re-routed bond pads in said periphery region; and

electrically coupling wire leads from the re-routed bond pads of the first die and the second die to the contacts,

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wherein the first die is a different size than the second die and the second die is positioned on the first die such that the re-routed bond pads of the first die are not covered by the second die.

74. (Original) The method of claim 73 wherein the step of electrically coupling is performed by wire bonding.

75. (Original) The method of claim 74 wherein the wire bonding is performed further to the interior of the second die relative to the bonding of the first die.

76. (Original) The method of claim 74 wherein at least one of the first and second dies comprise dynamic random access memory devices.

77. (Original) The method of claim 76 wherein at least one of the first and second dies comprise double-data rate dynamic random access memory devices, each memory device including at least 512 Mb of memory cells.

78. (Previously Presented) The method of claim 73 wherein, for both the first and second dies, the bond pads are positioned in a left column and a right column running parallel to a center line through the interior region, each bond pad in the left column being located to the left of the center line and each bond pad in the right column being located to the right of the center line, wherein the redistribution layer routes a plurality of bond pads from the right column across the center line to corresponding re-routed bond pads on the left side and also routes a plurality of bond pads from the left column across the center line to corresponding re-routed bond pads on the right side.

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79. (Previously Presented) The method of claim 73 wherein the redistribution layer of each of the first and second dies includes a ground plane, the ground plane including a line substantially encircling the re-routed bond pads and a plurality of ground lines that surround some of the re-routing lines.

80. (Previously Presented) The method of claim 79 wherein a plurality of the bond pads comprise data input/output bond pads, wherein the plurality of ground lines surround some but not all of the re-routing lines, and wherein the plurality of ground lines surround re-routing lines that are electrically coupled to the data input/output bond pads.

81. (Original) The method of claim 73 wherein the redistribution layer of the first die includes a first ground plane and wherein the redistribution layer of the second die includes a second ground plane.

82. (Original) The method of claim 81 wherein the first ground plane and the second ground plane each comprise a line substantially encircling the re-routed bond pads.

83. (Previously Presented) The method of claim 82 wherein the first ground plane and the second ground plane each comprise ground lines adjacent a left side and a right side of a plurality of the re-routing lines.

84. (Original) The method of claim 73 wherein, for both the first and second dies, the re-routed bond pads comprise elongated bond pads extending from an edge of the die toward the interior region of the die, wherein electrically coupling wire leads comprises:

for the first die, attaching wires to the re-routed bond pads at a portion of the re-routed

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bond pads nearer the edge of the first die; and

for the second die, attaching wires to the re-routed bond pads at a portion of the re-routed bond pad nearer the interior region of the second die.

85. (Previously Presented) The method of claim 73 wherein the redistribution layer of the first and second dies comprises a multi-layer structure.

86. (Previously Presented) The method of claim 85 wherein the redistribution layer comprises:

a titanium layer;

a copper layer formed on the titanium layer;

a nickel layer formed on the copper layer; and

a gold layer formed on the nickel layer.

87. (Original) The method of claim 73 wherein the first die and the second die are both formed on a silicon substrate and wherein the spacer comprises a silicon spacer.

88. (Previously Presented) The method of claim 73 wherein the substrate includes at least one wiring layer formed inside the substrate, the wiring layer electrically coupling the contacts to conductive balls on a second surface of the substrate.

89. (Original) The method of claim 73 wherein placing the first die over the substrate comprises adhering the first die to the substrate with tape.

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90. (Original) The method of claim 73 wherein placing the first die over the substrate comprises printing an adhesive over the substrate and placing the first die in the adhesive.

91. (Original) The method of claim 73 wherein electrically coupling wire leads from the re-routed bond pads of the first die and the second die to contacts formed in the substrate comprises electrically coupling wire leads from the re-routed bond pads of the first die before placing a spacer over the first die and electrically coupling wire leads from the re-routed bond pads of the second die after placing the second die over the spacer.

92. (Currently Amended) A method of forming a stacked-die assembly, the method comprising:

providing a substrate with contacts formed on a top surface;

placing a bottom side of a first die over the top surface of the substrate;

placing a spacer over the first die;

placing a bottom side of a second die over the spacer; and

electrically coupling wire leads from re-routed bond pads of the first die and the second die to the contacts;

wherein each of the first die and the second die comprises re-routing lines that redistribute bond pads located on a right side of a [[first]] gap to re-routed bond pads in a periphery region along a left side and re-routing lines that redistribute bond pads located on a left side of the [[first]] gap to re-routed bond pads in a periphery region along a right [[side.]] side, each of said re-routing lines extending without an intermediate connection from said bond pads to said re-routed bond pads in said periphery region;

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93. (Previously Presented) The method of claim 92 wherein the step of electrically coupling is performed by wire bonding.

94. (Previously Presented) The method of claim 93 wherein the wire bonding is performed further to the interior of the second die relative to the bonding of the first die.

95. (Previously Presented) The method of claim 92 wherein the first die is identical in structure to the second die.

96. (Previously Presented) The method of claim 95 wherein the first and second dies comprise dynamic random access memory devices.

97. (Previously Presented) The method of claim 96 wherein the first and second dies comprise double-data rate dynamic random access memory devices, each memory device including at least 512 Mb of memory cells.

98. (Previously Presented) The method of claim 95 wherein, for both the first and second dies, the bond pads are positioned in a left column and a right column running parallel to a center line through the interior region, each bond pad in the left column being located to the left of the center line and each bond pad in the right column being located to the right of the center line, wherein the redistribution layer routes a plurality of bond pads from the right column across the center line to corresponding re-routed bond pads on the left side and also routes a plurality of bond pads from the left column across the center line to corresponding re-routed bond pads on the right side.

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99. (Previously Presented) The method of claim 95 wherein each of the first and second dies includes a ground plane, the ground plane including a line substantially encircling the re-routed bond pads and a plurality of ground lines that surround some of the re-routing lines.

100. (Previously Presented) The method of claim 99 wherein a plurality of the bond pads comprise data input/output bond pads, wherein the plurality of ground lines surround some but not all of the re-routing lines, and wherein the plurality of ground lines surround re-routing lines that are electrically coupled to the data input/output bond pads.

101. (Previously Presented) The method of claim 95 wherein the first die includes a first ground plane and wherein the second die includes a second ground plane.

102. (Previously Presented) The method of claim 101 wherein the first ground plane and the second ground plane each comprise a line substantially encircling the re-routed bond pads.

103. (Previously Presented) The method of claim 101 wherein the first ground plane and the second ground plane each comprise ground lines adjacent a left side and a right side of a plurality of the re-routing lines.

104. (Previously Presented) The method of claim 92 wherein, for both the first and second dies, the re-routed bond pads comprise elongated bond pads extending from an edge of the die toward an interior region of the die, wherein electrically coupling wire leads comprises:

for the first die, attaching wires to the re-routed bond pads at a portion of the re-routed bond pads nearer an edge of the first die; and

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for the second die, attaching wires to the re-routed bond pads at a portion of the re-routed bond pad nearer an interior region of the second die.

105. (Previously Presented) The method of claim 92 wherein the re-routing lines of the first and second dies comprise a multi-layer structure.

106. (Previously Presented) The method of claim 105 wherein the re-routing lines comprise:

a titanium layer;

a copper layer formed on the titanium layer;

a nickel layer formed on the copper layer; and

a gold layer formed on the nickel layer.

107. (Previously Presented) The method of claim 92 wherein the first die and the second die are both formed on a silicon substrate and wherein the spacer comprises a silicon spacer.

108. (Previously Presented) The method of claim 92 wherein the substrate includes at least one wiring layer formed inside the substrate, the wiring layer electrically coupling the contacts to conductive balls on a second surface of the substrate.

109. (Previously Presented) The method of claim 92 wherein placing the first die over the substrate comprises adhering the first die to the substrate with tape.

110. (Previously Presented) The method of claim 92 wherein placing the first die over the substrate comprises printing an adhesive over the substrate and placing the first die in the adhesive.

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111. (Previously Presented) The method of claim 92 wherein electrically coupling wire leads from the re-routed bond pads of the first die and the second die to contacts formed in the substrate comprises electrically coupling wire leads from the re-routed bond pads of the first die before placing a spacer over the first die and electrically coupling wire leads from the re-routed bond pads of the second die after placing the second die over the spacer.

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